

40/663, 671

Examiner's Notes

Cinematograph claims 1-3 on Jan 11, 2006

S (Sampling) (8a) (laser (4a) beam # or laser (4a) ray #)
S (oscillator)

S (laser (8a) irradiant?)

S (control? or alter? or vary?) (8a) (8a) (8a)

S (speed? or rate?) (8a) (laser (4a) beam # or beam) or beam (8a) spot #

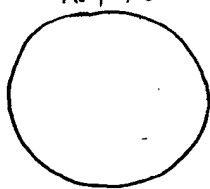
S (fluctuat? (8a) energy?)

12 P2 Rej:

Claim 4, "... signal processing..." line 8

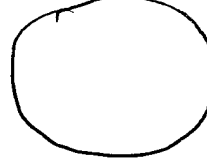
Claim 7, "... crystallinity..." line 14

III



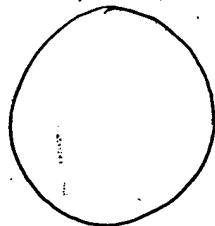
*4 Mtd

VII



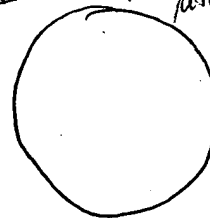
*8 Mtd

IV



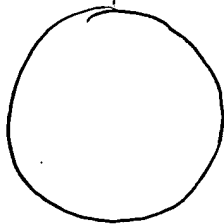
*5 Mtd

I



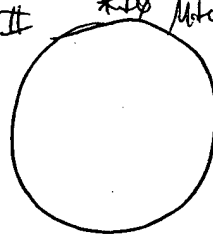
*9 Mtd

V



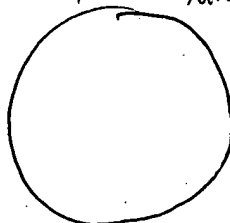
*6 Mtd

II



*10 Mtd

VI



*7 Mtd

Search History

STN

(HCAPLUS, USPATALL, INSPEC, JATRO, INPA-DOC)

3/2/06

=> d 13 1-2 abs, bib

L3 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The present invention relates to a probe for an electro-optic sampling oscillator. The probe for an electro-optic sampling oscillator provides a laser diode that generates a laser beam based on the control signal of the electro-optical sampling oscilloscope; a collimator lens that makes the laser beam into a parallel beam; an electro-optic element that has a reflecting film at the end; an isolator provided between the collimator lens and the electro-optic element that passes the laser beam that is generated by the laser diode and separates the reflected beam of the laser beam that was reflected by the reflecting film; photodiodes that convert the reflected beam separated by the isolator into an electrical signal; and a condenser lens provided between the isolator and the electro-optic element that condenses the parallel beam to one point on the reflecting film, makes the reflected beam reflected by the reflecting film into a parallel beam again, and makes the optical axes of the light incident on the reflecting film and the light reflected by the reflecting film coincide.

AN 2000:906073 HCAPLUS
TI Electro-optic probe
IN Ito, Akishige; Ohta, Katsushi; Yagi, Toshiyuki; Shinagawa, Mitsuru; Nagatsuma, Tadao; Yamada, Junzo
PA Ando Electric Co., Ltd., Japan; Nippon Telegraph and Telephone Corporation
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6166845	A	20001226	US 1999-317917	19990525
PRAI	JP 1998-148033	A	19980528		

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
AB Described in detail is a laser-induced fluorescence system which was successfully interfaced with 2 aircraft sampling platforms. This system consists of: (1) a Nd-Yag (Y-Al garnet) laser driven oscillator-amplifier dye laser; (2) a sampling manifold with associated fluorescence detection optics; (3) an OH calibration chamber; (4) a laser beam steering assembly; and (5) sampling electronics and data processing hardware. This system was flown some 50,000 air miles making tropospheric OH radical measurements over the latitude range of 70° N to 57° S. The OH concns. measured during these flights were 30 parts-per-quadrillion (3.7 + 105 mols./cm3) at altitudes of 6 km to 0.8 parts-per-trillion (2.0 + 107 mols./cm3) at 0.5 km. Computations indicate that the existing aircraft system with modest modifications should be capable of detecting natural tropospheric levels of NO, SO2, CH2O, NO2, HNO2, NO3, H2O2, and CS2 by using both conventional laser-induced fluorescence methodol. and multiphoton techniques.

AN 1980:97195 HCAPLUS
DN 92:97195
TI Airborne laser-induced fluorescence system for measuring hydroxyl radical and other trace gases in the parts-per-quadrillion to parts-per-trillion range
AU Davis, D. D.; Heaps, W. S.; Philen, D.; Rodgers, M.; McGee, T.; Nelson, A.; Moriarty, A. J.
CS Sch. Geophys. Sci., Georgia Inst. Technol., Atlanta, GA, 30332, USA
SO Review of Scientific Instruments (1979), 50(12), 1505-16
CODEN: RSINAK; ISSN: 0034-6748
DT Journal
LA English

FILE 'HOME' ENTERED AT 10:46:32 ON 02 MAR 2006

=> fil hcaplus, inspec, japio, uspatall, inpadoc

COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

0.63

0.63

FILE 'HCAPLUS' ENTERED AT 10:48:31 ON 02 MAR 2006

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FILE 'USPAT2' ENTERED AT 10:48:31 ON 02 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'INPADOC' ENTERED AT 10:48:31 ON 02 MAR 2006

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=> s (laser(8a)irradiat?)

L1 118415 (LASER(8A) IRRADIAT?)

=> s (control? or alter? or vary?)

4 FILES SEARCHED...

L2 12046865 (CONTROL? OR ALTER? OR VARY?)

=> s (speed# or rate#) (8a) (laser(2w)beam# or beam# or beam(2w)spot3#)

L3 61434 (SPEED# OR RATE#) (8A) (LASER(2W) BEAM# OR BEAM# OR BEAM(2W) SPOT3 #)

=> s (flutuat? or alter? or vary? or manipulat?) (8a) (energ?)

L4 104000 (FLUTUAT? OR ALTER? OR VARY? OR MANIPULAT?) (8A) (ENERG?)

=> d his

(FILE 'HOME' ENTERED AT 10:46:32 ON 02 MAR 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT

10:48:31 ON 02 MAR 2006

L1 118415 S (LASER(8A)IRRADIAT?)

L2 12046865 S (CONTROL? OR ALTER? OR VARY?)

L3 61434 S (SPEED# OR RATE#) (8A) (LASER(2W)BEAM# OR BEAM# OR BEAM(2W)SPOT

L4 104000 S (FLUTUAT? OR ALTER? OR VARY? OR MANIPULAT?) (8A) (ENERG?)

=> s l2 and l3

L5 37674 L2 AND L3

=> s l2 and l4

L6 103078 L2 AND L4

=> d his

(FILE 'HOME' ENTERED AT 10:46:32 ON 02 MAR 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT

10:48:31 ON 02 MAR 2006

L1 118415 S (LASER(8A)IRRADIAT?)

L2 12046865 S (CONTROL? OR ALTER? OR VARY?)

L3 61434 S (SPEED# OR RATE#) (8A) (LASER(2W)BEAM# OR BEAM# OR BEAM(2W)SPOT

L4 104000 S (FLUTUAT? OR ALTER? OR VARY? OR MANIPULAT?) (8A) (ENERG?)

L5 37674 S L2 AND L3
L6 103078 S L2 AND L4
=> s l1 and l5 and l6
L7 326 L1 AND L5 AND L6

=> d his

(FILE 'HOME' ENTERED AT 10:46:32 ON 02 MAR 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT
10:48:31 ON 02 MAR 2006

- L1 118415 S (LASER(8A)IRRADIAT?)
- L2 12046865 S (CONTROL? OR ALTER? OR VARY?)
- L3 61434 S (SPEED# OR RATE#) (8A) (LASER(2W)BEAM# OR BEAM# OR BEAM(2W)SPOT
- L4 104000 S (FLUTUAT? OR ALTER? OR VARY? OR MANIPULAT?) (8A) (ENERG?)

=> s 12 and 13
L5 37674 L2 AND L3

=> s 12 and 14
L6 103078 L2 AND L4

=> d his

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FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT
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- L1 118415 S (LASER(8A)IRRADIAT?)
- L2 12046865 S (CONTROL? OR ALTER? OR VARY?)
- L3 61434 S (SPEED# OR RATE#) (8A) (LASER(2W)BEAM# OR BEAM# OR BEAM(2W)SPOT
- L4 104000 S (FLUTUAT? OR ALTER? OR VARY? OR MANIPULAT?) (8A) (ENERG?)
- L5 37674 S L2 AND L3
- L6 103078 S L2 AND L4

=> s 11 and 15 and 16
L7 326 L1 AND L5 AND L6

=>